

GE Pool for Students other than that of BA (VS) Materials Management
Semester V

B.A. (VS) MATERIALS MANAGEMENT GE 5.1:

Introduction to Materials Management

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE, REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Introduction to Materials Management GE: 5.1	4	3	1	0	Pass in Class XII	NIL

Learning objectives: This subject will to introduce conceptual framework of material management and can manage the material management process. They will understand and get familiarize internal and external of material management, material management activities, functions and organizational structure.

Learning Outcomes: After completion of the course, Students will be able to

- discuss the conceptual framework of material management and can manage the materialmanagement process.
- explain both internal and external of material management, material managementactivities, functions and organizational structure;
- explain production processes, machines and tools used in industries.
- analyze the dynamics of inventory management’s principles, concepts, and techniques asthey relate to the entire supply chain.
- explain familiarize themselves with inventory management practices and perform the material handling equipment in the stores.

Unit1: Materials Management and its linkages

9 hours

Meaning and Scope, Functions of Materials Management, Objectives and Significance of Materials Management. Interfaces of Materials Management: Internal and external interfaces, Organization of Material Management, Integrated materials management system and its advantages. Linkages with other functional areas of Management i.e. Production, Accounting and Finance, Marketing, Information Technology, Total Quality Management.

Unit2: Materials Planning and Budgeting**9 hours**

Introduction, Management of Production and Manufacturing, Types of Industries, Manufacturing Planning and Control, Materials Management in Manufacturing and Process Industries , Materials Planning and Budgeting in Continuous Process Industries; Broad categories of production processes used in industries. Productivity plan, commonly used machines and tools in industries.

Unit 3: Purchasing**9 hours**

Purchasing in Materials management, system concept, purchasing and procurement activities under Materials management, Value Analysis and value Engineering, Purchasing and quality Assurance, Purchase Cycle, Negotiation & Bargaining , Vendor relations, Purchasing Methods.

Unit 4: Inventory**9 hours**

Need of Inventory, Types of Inventory, Characteristics of Inventory, Components of Inventory, Inventory Functionality, Some basic tools and techniques of Inventory Management, Planning the Inventory Resource, Material Requirement Planning (MRP), Advantages over conventional planning (Order Point Method) , Input and output of MRPsystem.

Unit 5: Materials handling and storage systems**9 hours**

Material handling in stores, Principles of Materials Handling system, Materials Handling Equipment, Safety issues, Physical distribution logistics, physical control of stocks: obsolete, surplus and scrap Management, Layout of stores and warehouse.

Practical Exercise

1. You have recently been appointed as the Materials Manager in a manufacturing company. Your role involves understanding the meaning and scope of Materials Management, its functions, objectives, significance, and various interfaces within and outside the organization. Additionally, you need to comprehend the organization of Materials Management, the integrated materials management system, and its linkages with other functional areas of management. Prepare a explanatory note to be presented to Director operations.
2. You are a production manager in a manufacturing company that operates in the process industry. Your role involves managing production processes, materials, and resources to ensure efficient manufacturing operations. You are responsible for manufacturing planning and control, materials management, materials planning and budgeting, as well as overseeing the productivity plan and utilization of machines and tools. You are required to prepare a report for presentation to MD
3. As a materials management professional, you are tasked with analyzing the purchasing function within the broader context of materials management. Using your knowledge of purchasing and procurement activities, value analysis and value engineering, purchasing and quality assurance, and inventory management, critically evaluate the impact of effective purchasing on the overall materials management

system. You need to prepare report Discussing purchasing in materials management and its role in the procurement process. Analyze the key activities involved in purchasing, including supplier selection, price negotiation, contract management, and vendor evaluation.

4. You have been appointed as the inventory manager in a manufacturing company. Apply your knowledge of the need for inventory, types of inventory, characteristics of inventory, components of inventory, and basic tools and techniques of inventory management to address the issue that ABC Manufacturing is experiencing challenges in managing its inventory effectively. The company has identified issues with stockouts, excess inventory, and inefficient replenishment processes. As the inventory manager, you have been tasked with analyzing the inventory situation and proposing improvements using various inventory management techniques.
5. You have been appointed as the warehouse manager for a large retail organization. Apply your knowledge of material handling in stores, principles of materials handling systems, materials handling equipment, safety issues, physical distribution logistics, physical control of stocks, and layout of stores and warehouses to address the issue that XYZ Retail operates a central warehouse that receives, stores, and distributes a wide range of products to its retail stores across the country. The company is experiencing challenges in optimizing its material handling processes, ensuring warehouse safety, managing obsolete and surplus stocks, and improving the layout of its stores and warehouse. As the warehouse manager, you have been tasked with analyzing the situation and proposing improvements using effective material handling practices.

Suggested Readings

- Arnold, J. R. T., Champman, S. N., & Ramakrishnan, S. R. (2017). Introduction to Materials Management. Pearson Education, Inc.
- Dutta, A. K. (2013). Materials Management: Procedures, Text and Cases. Prentice Hall of India Pvt. Ltd., New Delhi.
- Gopalakrishnan, P., & Sundareson, M. (2006). Materials Management: An Integrated Approach. Prentice Hall of India Pvt. Ltd., New Delhi.
- Pooler, V. H. (1997). Purchasing and Supply Management: Creating the Vision. Chapman Hall.
- Shah, N. M. (2000). An Integrated Concept of Materials Management. Indian Institute of Materials Management, Baroda Branch, Baroda.
- Sharma, S. C. (2008). Material Management and Materials Handling. Khanna Publishers, New Delhi.
- Varma, M. M. (2015). Essentials of Storekeeping and Purchasing. Sultan Chand and Sons, New Delhi.

Notes:

- **Suggested readings shall be updated and uploaded on the college website from time to time.**
- **Examination scheme and mode shall be prescribed by the Examination branch, University of Delhi from time to time.**